

ABSTRACT OF THE DISCLOSURE

A virtual private network (VPN) service is provided through a shared network infrastructure comprising interconnected provider edge (PE) devices having customer edge (CE) interfaces. Some of the CE interfaces are allocated to a VPN supporting virtual LANs. A correspondence between a CE interface and a virtual LAN is learnt on the basis of tagged frames received at this CE interface and including an identifier of this virtual LAN. The learning process permits the detection of pairs of CE interfaces which correspond to a common virtual LAN. Upon such detection, a virtual circuit is established in the shared network infrastructure between the PE devices having these CE interfaces, and subsequently used for forwarding frames including the identifier of the common virtual VLAN.